

A NEW SPECIES OF *EUGENIA* L. (MYRTACEAE) FROM SOUTHERN NATAL AND TRANSKEI

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ABSTRACT

Eugenia verdoorniae Van Wyk, a new species from Southern Natal and Transkei is described.

UITTREKSEL

'n NUWE *EUGENIA*-SPESIE (MYRTACEAE) VAN SUID-NATAL EN TRANSKEI

Eugenia verdoorniae Van Wyk, 'n nuwe spesie van Suid-Natal en Transkei word beskryf.

INTRODUCTION

While working on the South African Myrtaceae a need was felt for a specific name to refer to a still unnamed *Eugenia* species which has been discovered after the revision of Dümmer (1912).

The purpose of this article is to describe this species which was first collected in 1925 in the Lusikisiki district of Transkei. Between 1925 and 1929 several herbarium specimens of it were sent to Pretoria by Mr G. Fraser, a forester stationed at the Ntsubane forest station in Transkei.

These specimens were studied by Dr I. C. Verdoorn of the Botanical Research Institute. She recognised them as belonging to a new species and, during the 1930s, prepared a preliminary description which was however never published. The name *E. fraseri* (after its discoverer) was proposed. Unfortunately this name was at that time already used for a *Eugenia* species from Borneo.

Field observations and evidence from a recent anatomical investigation (Van Wyk, 1978) confirm the distinctness of this species. I thus take pleasure in naming it after Dr Verdoorn in recognition of her contribution to the taxonomy of South African plants.

DESCRIPTION

Eugenia verdoorniae Van Wyk, sp. nov., species haec a ceteris speciebus Africae australis differt foliis perangustis et planis, margine non revolutis, costa in

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statu vivo utrinque obsoleta, in statu sicco autem supra leviter canaliculata in inferiore triente tantum, infra passim valde elevata.

Est affinis illis speciebus Africae australis quae exhibent semen globosum, testam crassam lignosamque, et embryonem non conspicue glandulis punctatum.

Evergreen, androdioecious or andromonoecious, much-branched shrub or small tree, 1–3 m tall; branched from the base or with a single trunk up to 200 mm diam.; young branches reddish-brown to brown becoming grey when mature, sparingly covered with inconspicuous appressed hairs, branchlets becoming glabrous with age; internodes (4–)6–12(–20) mm long. *Leaves* decussate, petiolate; lamina dark red or pinkish when young, becoming dark green and shiny above, paler and dull below, glandular-punctate, initially covered with inconspicuous appressed hairs (especially basal third of lamina), becoming glabrous with age, narrowly elliptic to narrowly linear-lanceolate, (15–)20–40(–45) mm long, (4–)5–6(–8) mm wide, apex acute or obtuse, gradually tapering from the middle into a short petiole; venation pinnately netveined, midrib in dried leaves flat or slightly concave for basal third of length above, strongly elevated below, flat on both sides in fresh leaves; primary lateral veins alternate or opposite, 4–6 pairs, spreading, obscure above but raised below in dried leaves, obscure on both sides in fresh leaves, fused into a longitudinal slightly lobed marginal vein about 0.5 mm from the margin of the lamina, tertiary veins obscure; blade coriaceous, flat, margin entire and slightly revolute only in dried leaves; petiole 1–2 mm long, ventrally slightly canaliculate. *Inflorescences* usually short axillary few-flowered leafless racemes which often develop as leafy shoots, the number of flowers in a raceme sometimes reduced to one or two, flowers rarely solitary, sparingly pubescent; bracts often caducous. *Staminate flowers* subsessile or with pedicels 3–5 mm long, bracteoles 2, attached at the base of the hypanthium, 0.5–1 mm long, 0.3–0.4 mm wide, acute, erect, sparingly pubescent mainly on the margins. *Sepals* 4, subrotund, 2 large, 1–1.5 mm long, 1.8–2.5 mm wide, 2 small, 0.5–1.3 mm long, 1.5–2.0 mm wide, glabrous except for a few hairs on the margins, the abaxial surface sparingly gland-dotted. *Petals* 4, free, white, sometimes with a tinge of pink, more or less oval, c. 3–4 mm long, 2.5–4 mm wide, margins not ciliate, sometimes with a few (c. 5) scattered glands. *Disc* flat with a central depression, surface wrinkled, fleshy, sparingly pubescent. *Stamens* (14–)16–20(–22), arising from the disc; filaments of various lengths, (3–)4–5(–6) mm long, free to the base; anthers 2—thecous, each theca opening with a longitudinal slit, versatile, c. 1 mm long, 0.6–0.8 mm broad, all fertile. *Hypanthium* more or less obconical, c. 1 mm long, glabrous. *Ovary* abortive; style rudimentary, 0.5 mm long; stigma absent. *Bisexual flowers* subsessile or with pedicels 3–5 mm long; bracteoles as in staminate flowers. *Sepals* and *petals* as in staminate flowers. *Disc* flat with an even surface, fleshy, sparingly pubescent. *Stamens* (11–)14–16(–20), resembling those of the staminate flowers. *Hypanthium* obconical, 1.5–2

mm long. Ovary fused to the lower part of hypanthium, 2–3 locular; ovules (1–)2(–4) per locule, 1 or 2 developing; style filiform, terete, glabrous, 4–5 mm long; stigma small, slightly discoid, covered with small papillae. *Fruit* a fleshy red? (known only from dried specimens) berry, obovoid to subglobose, c. 18 mm diam., glabrescent with persistent calyx lobes at the apex; pericarp closely adhering to the testa—but not fused with it. *Seed* globose with a smooth surface, c. 10–15 mm diam.; testa woody and tough with a fibrous texture, c. 0.5 mm thick, light brown; embryo with cotyledons partly fused, light green and fleshy, not conspicuously glandular-punctate.

Flowering throughout the year, but mainly from June to July.

Type: Transkei—3129 (Port St. Johns): Mkwini river mouth, S. of Goss Point (-BD), *Van Wyk 1614* (PRE!, holo.).

DISTRIBUTION

Since its discovery, and especially during the last ten years, sporadic collections of *E. verdoorniae* have been made. The species seems to have a rather restricted distribution in Southern Natal and Pondoland where it is confined to a few scattered localities in the districts of Lusikisiki, Bizana and Port Shepstone. It usually grows on the margin of natural forests or in the open on the banks and islands of some of the larger rivers. Although common in some localities, it is a rare species in need of protection.

SPECIMENS EXAMINED

NATAL—3030 (Port Shepstone): Umtamvuna nature reserve (-CC), *Moll 5490* (PRE, NH); Umtamvuna river, *Nicholson 896* (PRE); Beacon Hill West, *Strey 7227* (NH), *Van Wyk 1681, 1682, 1696, 1700* (PRE, PRU).

TRANSKEI—3129 (Port St. Johns): Indindinde stream, below Indindinde Drift (-BD)?, *Fraser Z. 34* (PRE), *s.n.* sub PRF 7353 (PRE); Indindinde forest, *Fraser s.n.* sub PRF 6054 (PRE); Mkwini river mouth, S. of Goss Point (-BD), *Nicholson 941* (PRE), *Van Wyk 1614*, (PRE!, holo.) *1615, 1616, 1617* (PRE, PRU); Msikaba river mouth, *Van Wyk 1622* (PRE, PRU); Goss Point, *Strey 10157* (PRE, NH).

DISCUSSION

E. verdoorniae (Fig. 1) can easily be distinguished from the other Southern African *Eugenia* species by the following combination of characteristics: (i) narrow flat leaves with the margin not revolute; (ii) the midrib flat on both sides in fresh material; (iii) the midrib only slightly concave above, but raised below in dried leaves; (iv) seeds globose, testa thick and tough; (v) the embryo not



FIG. 1.

Eugenia verdoorniae. 1, leafy twig with flowers, $\times 1$; 2, longitudinal section of bisexual flower, $\times 6$ (both from Van Wyk 1614); 3, longitudinal section of male flower, $\times 6$ (Van Wyk 1615); 4, leaf to show venation, $\times 2$; 5, transection of fresh leaf, $\times 6$ (both from Van Wyk 1614).

conspicuously glandular-punctate; (vi) stems in which the first-formed periderm originates in the primary external phloem.

It is related to the group of species (Group Y, vide Van Wyk, 1978) that includes *E. woodii*, *E. zuluensis*, *E. albanensis*, *E. zeyheri*, *E. pusilla* and *E. erythrophylla*.

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